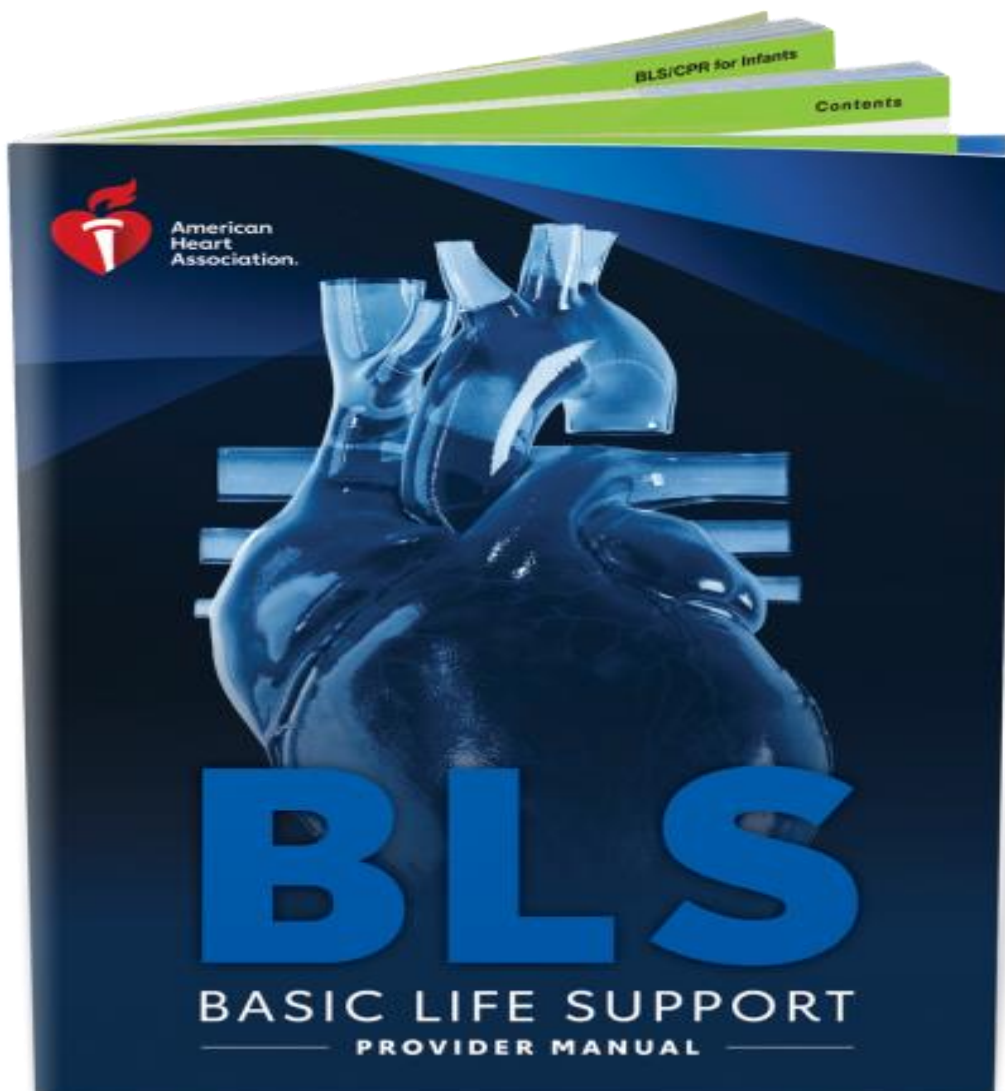




BLS - Healthcare Provider Review Packet

Updated for 2025 ECC/CPR Guidelines
OCT 2025



Purpose of CPR (cardiopulmonary resuscitation) = Circulate oxygenated blood to the vital organs

Purpose of AED (Automated External Defibrillator) = Re-establish a normal cardiac rhythm

AHA Chain of Survival



The 6 links in the Chain of Survival are:

- Recognition of cardiac arrest and activation of the emergency response system
- Early cardiopulmonary resuscitation (CPR) with an emphasis on chest compressions
- Rapid defibrillation
- Advanced resuscitation by Emergency Medical Services and other healthcare providers
- Post-cardiac arrest care
- Recovery (including additional treatment, observation, rehabilitation, and psychological support)

A strong Chain of Survival can improve chances of survival and recovery for victims of cardiac arrest.

**** The AHA 2025 BLS updates emphasize a single Chain of Survival, prioritize compression-first (CAB), and refine choking protocols (5 back blows/5 abdominal thrusts for adults) while integrating system-wide care, with key changes for pediatrics (no 2-finger compressions) and a focus on high-quality CPR on firm surfaces. Rescuers are encouraged to provide breaths if trained, and digital resources (like exams with open resources) are updated, requiring instructor updates by early 2026.**

Key Changes & Focus Areas:

- **Unified Chain of Survival:** One simplified model for all ages and settings, streamlining training.
- **Compression-First (CAB):** Immediate compressions, early defibrillation are paramount.
- **Breaths Still Matter:** Emphasized for healthcare providers and willing lay rescuers, especially in pediatric/drowning cases.
- **Choking Protocol (Adults):** Now cycles of 5 back blows followed by 5 abdominal thrusts.
- **Pediatric BLS:** No more 2-finger compressions for infants; immediate AED use with attenuators; breaths are crucial.
- **High-Quality CPR:** Focus on optimizing hand/body position and using firm surfaces.

- **System Integration:** Training now stresses the entire "Chain of Survival," from dispatch to post-arrest care.
- **Naloxone:** Explicitly shown in opioid overdose algorithms.
- **Ice Water Immersion:** Recommended for rapid cooling in severe hyperthermia.

CPR Age Groups:

Infant = Age 0-1

Child = Age 1 to Puberty (indicated by chest, underarm, and facial hair development in males, breast development in females)

Adult = Puberty and up

CPR consists of 4 main components:

Circulation – Checking pulse, cycles of CPR

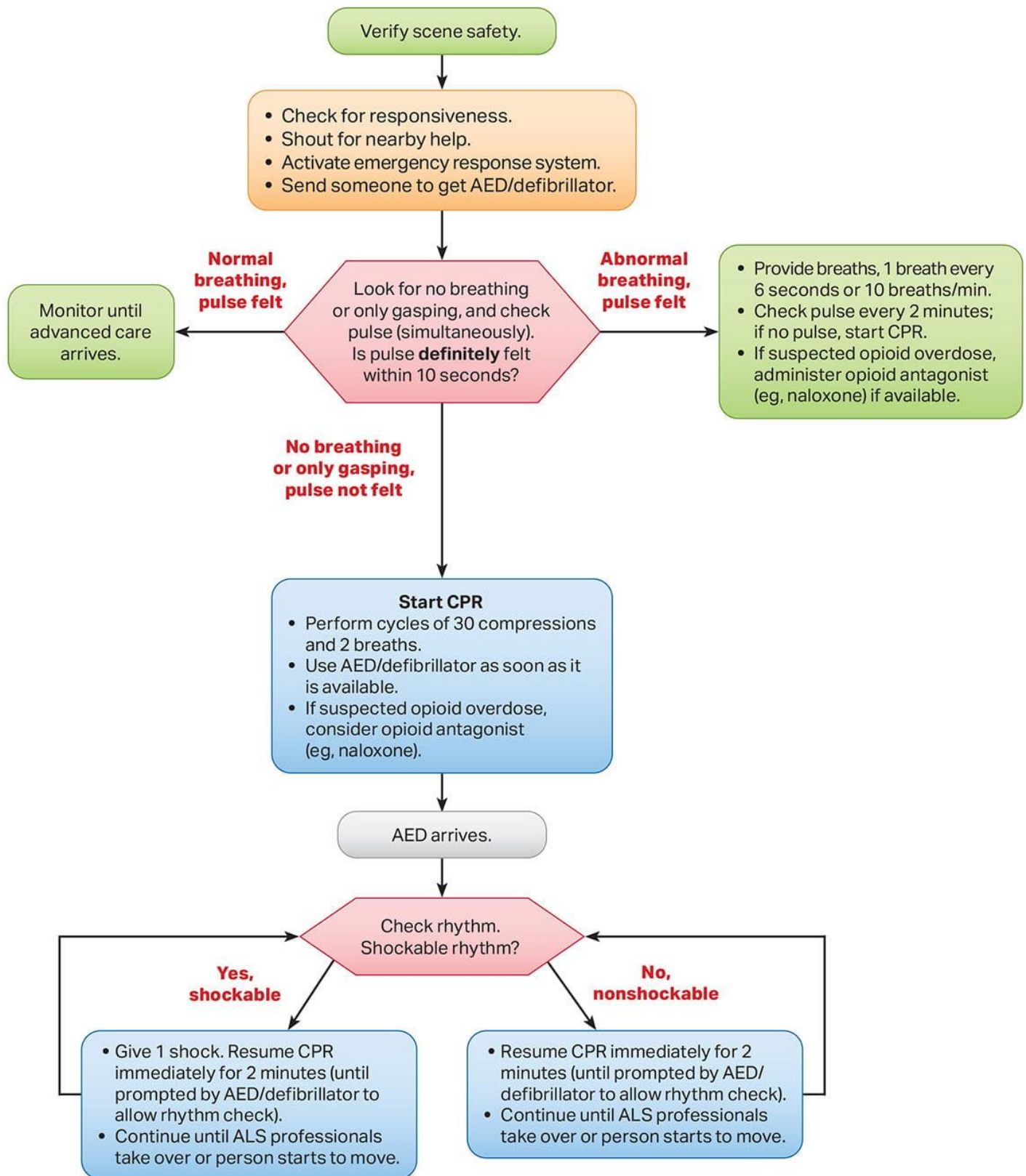
Airway – Opening airway, choking relief

Breathing – Providing initial breaths, rescue breathing

Defibrillation – AED

Techniques to Open the Airway: Head Tilt/Chin Lift or Jaw Thrust (if cervical spine injury is suspected)

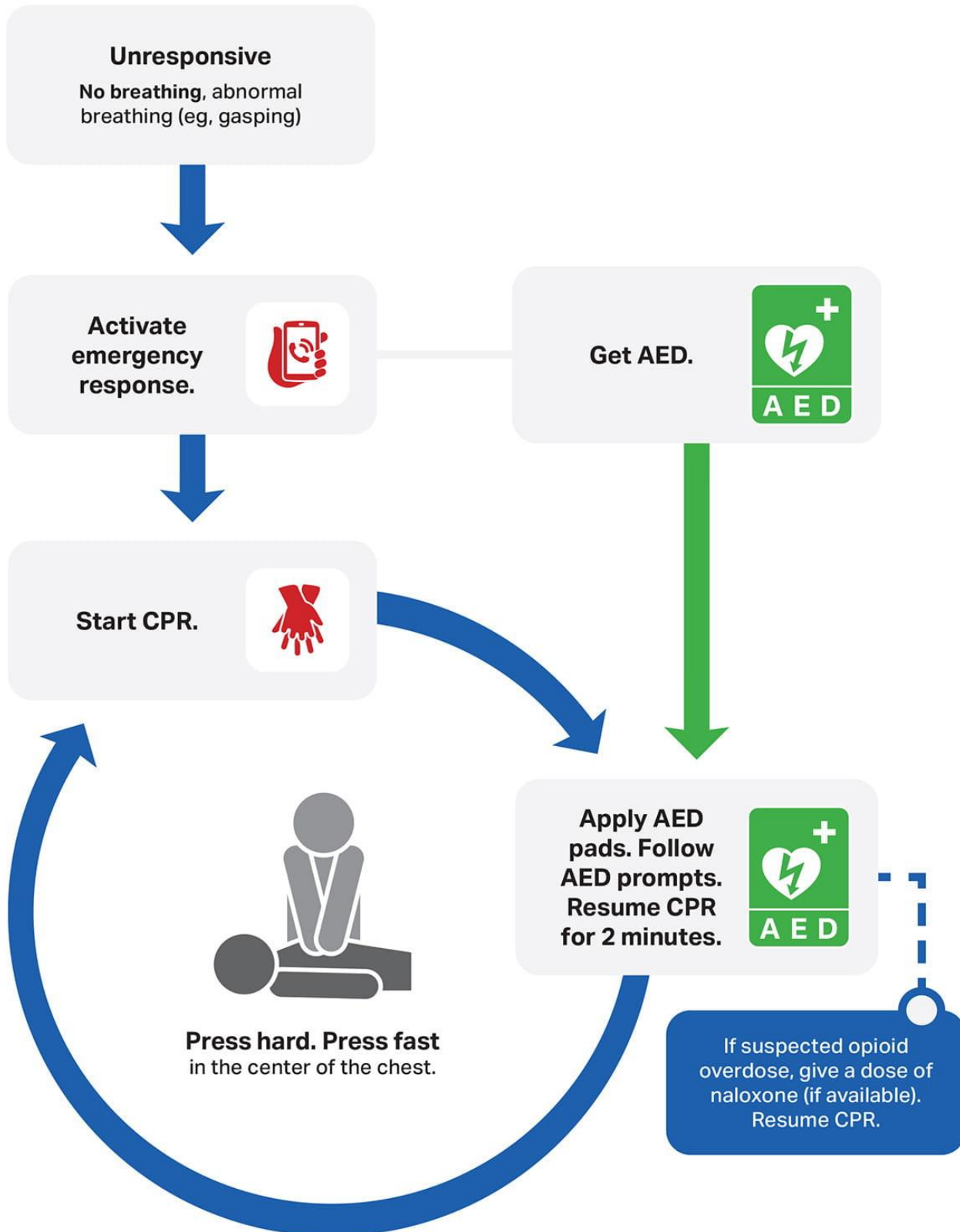
Adult* Basic Life Support Algorithm for Health Care Professionals



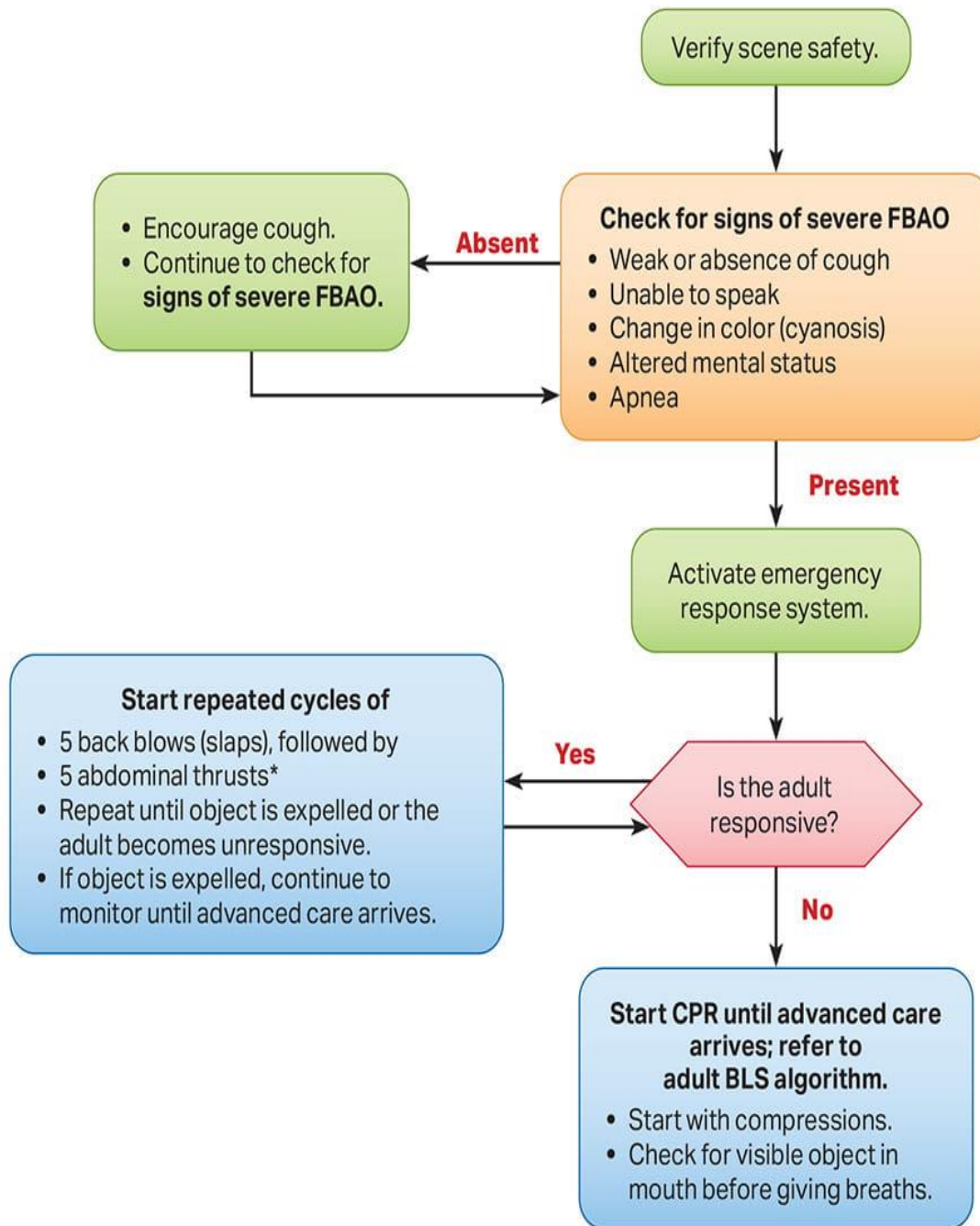
*If signs of puberty, treat as adult.

Act Now. Save a Life.

Follow these steps to take action.

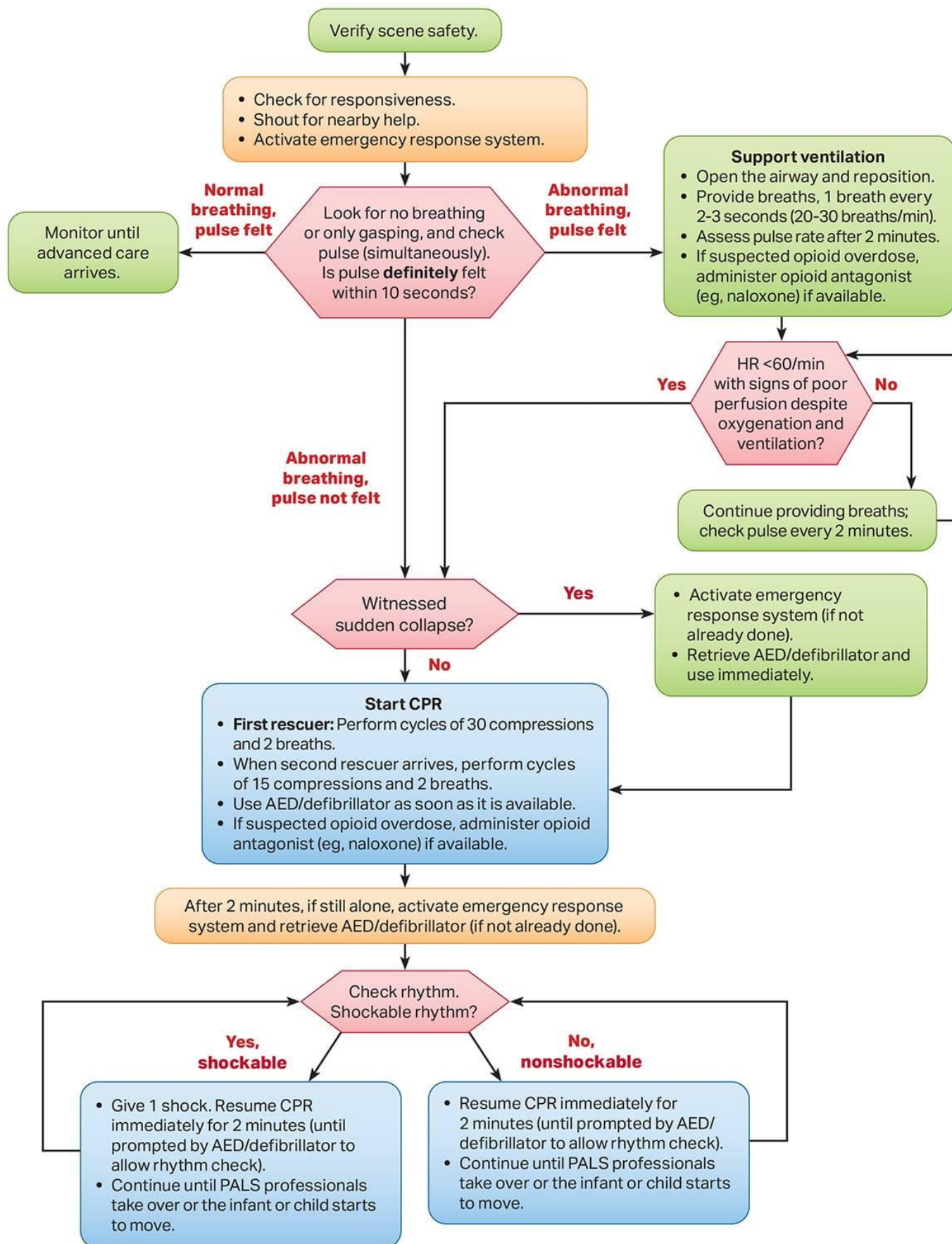


Adult Foreign-Body Airway Obstruction

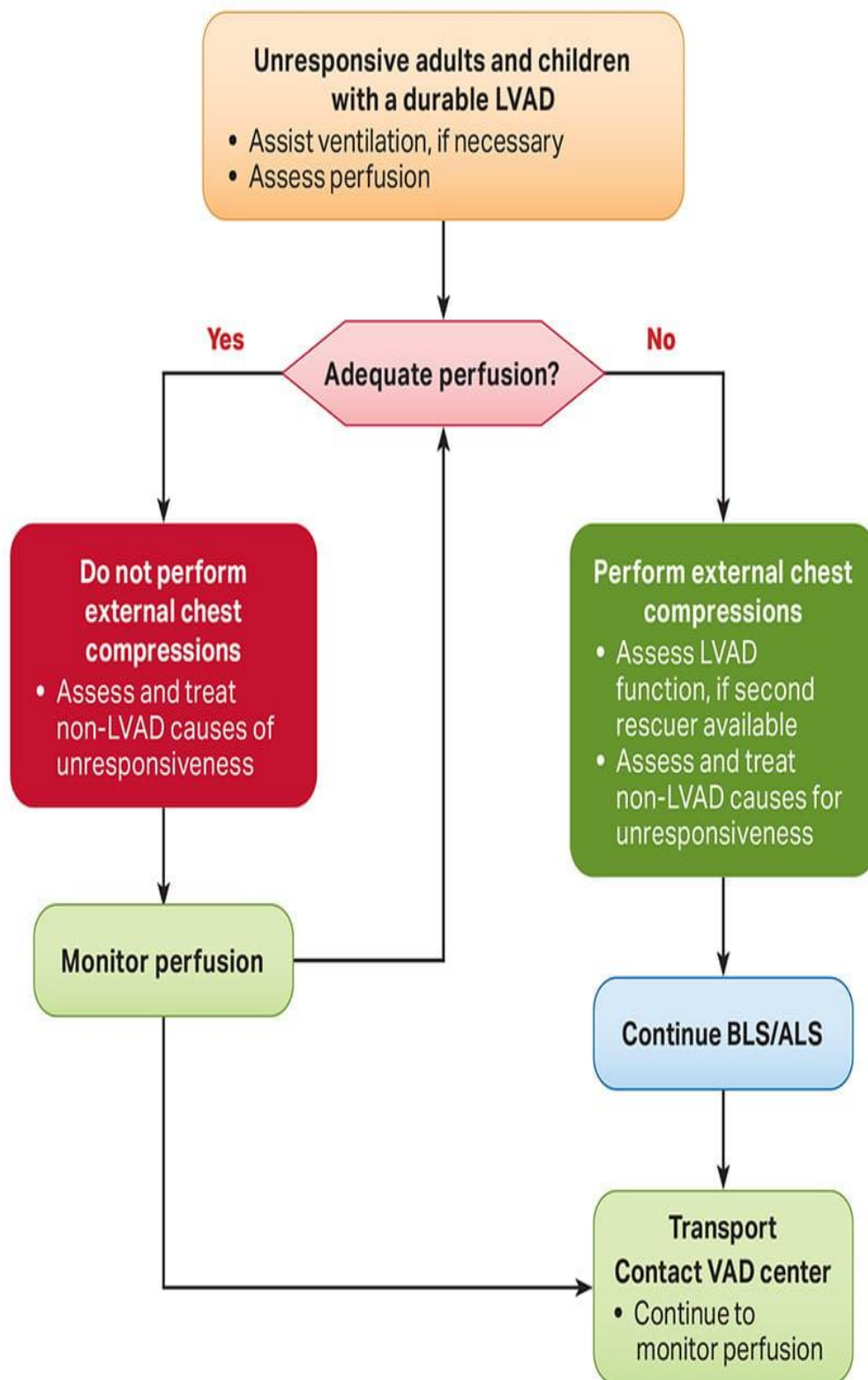


*For patients in the late stages of pregnancy, or when the rescuer is unable to encircle the patient's abdomen, 5 chest thrusts should be used instead.

Pediatric Basic Life Support Algorithm (Infants to Puberty) for Health Care Professionals—Single Rescuer



Adult and Pediatric Durable Left Ventricular Assist Device Algorithm



Assessing Perfusion

Adequate perfusion* if any of the following present:

- Normal skin color and temperature
- Normal capillary refill
- MAP >50 mm Hg (if noninvasive BP cuff nonfunctional, use doppler or arterial line, if available)
- PETCO₂ >20 mm Hg

**Patients may not have palpable pulse*

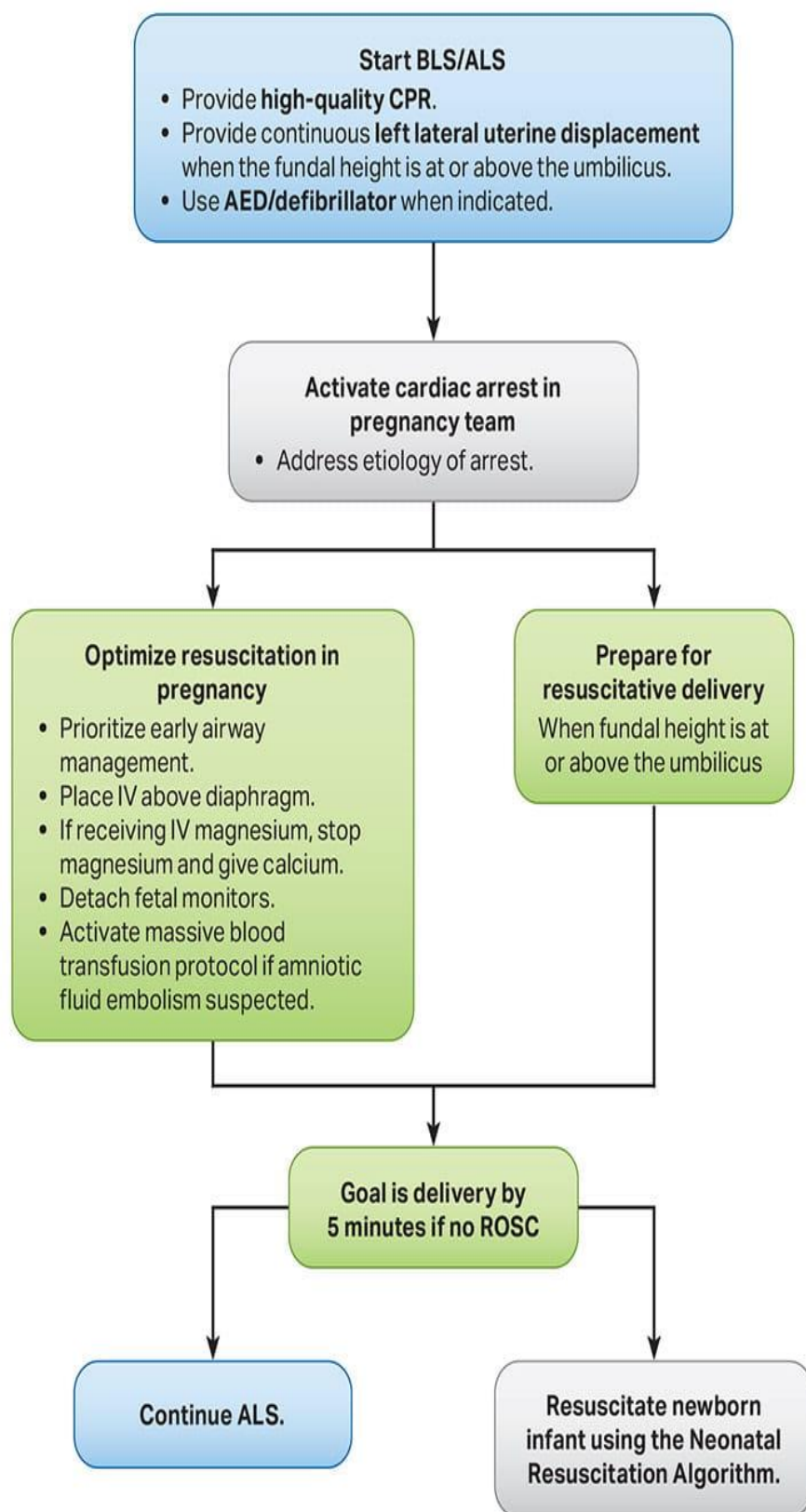
Non-LVAD Causes of Unresponsiveness

- Dysrhythmia
- Hemorrhage/hypovolemia
- Hypoglycemia
- Hypoxia
- Overdose
- Right ventricular failure
- Sepsis
- Stroke

Assess and Attempt to Restart LVAD Function

- Look/listen for alarms
- Listen for LVAD hum
- Driveline connected?
- Power source connected?
- Need to replace system controller?

Cardiac Arrest in Pregnancy Algorithm



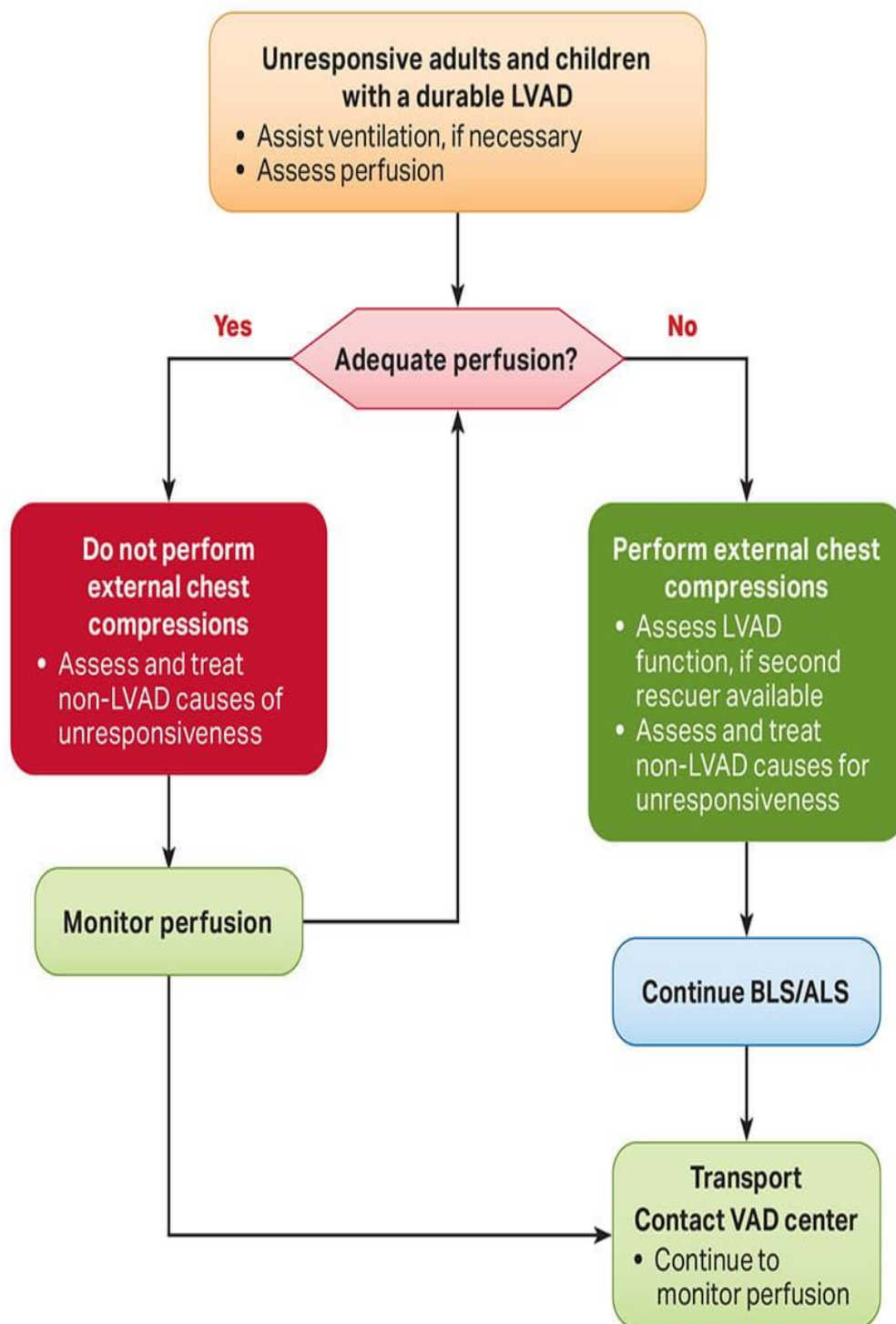
Explanation of Cardiac Arrest Interventions

- Cardiac arrest in pregnancy team will vary according to local resources but may include
 - Team Leader
 - Anesthesiologist
 - Obstetrician
 - Neonatologist
 - Nurses
 - Pharmacists
 - Other professionals
- The goal of left lateral uterine displacement is to relieve aortocaval compression and to facilitate effective chest compressions.
- The goal of resuscitative delivery is to improve the pregnant patient's outcome, and when feasible, the newborn infant's outcome.
- Ideally, perform resuscitative delivery by 5 minutes, depending on local resources.
- In pregnancy, difficult airway is common and is managed (eg, endotracheal intubation or supraglottic airway) by the most experienced professional.

Etiologies of Cardiac Arrest

- A** Anesthetic complications
- B** Bleeding
- C** Cardiovascular
- D** Drugs
- E** Embolic (amniotic fluid or pulmonary embolism)
- F** Fever
- G** General causes (H's and T's)
- H** Hypertension (eg, preeclampsia)

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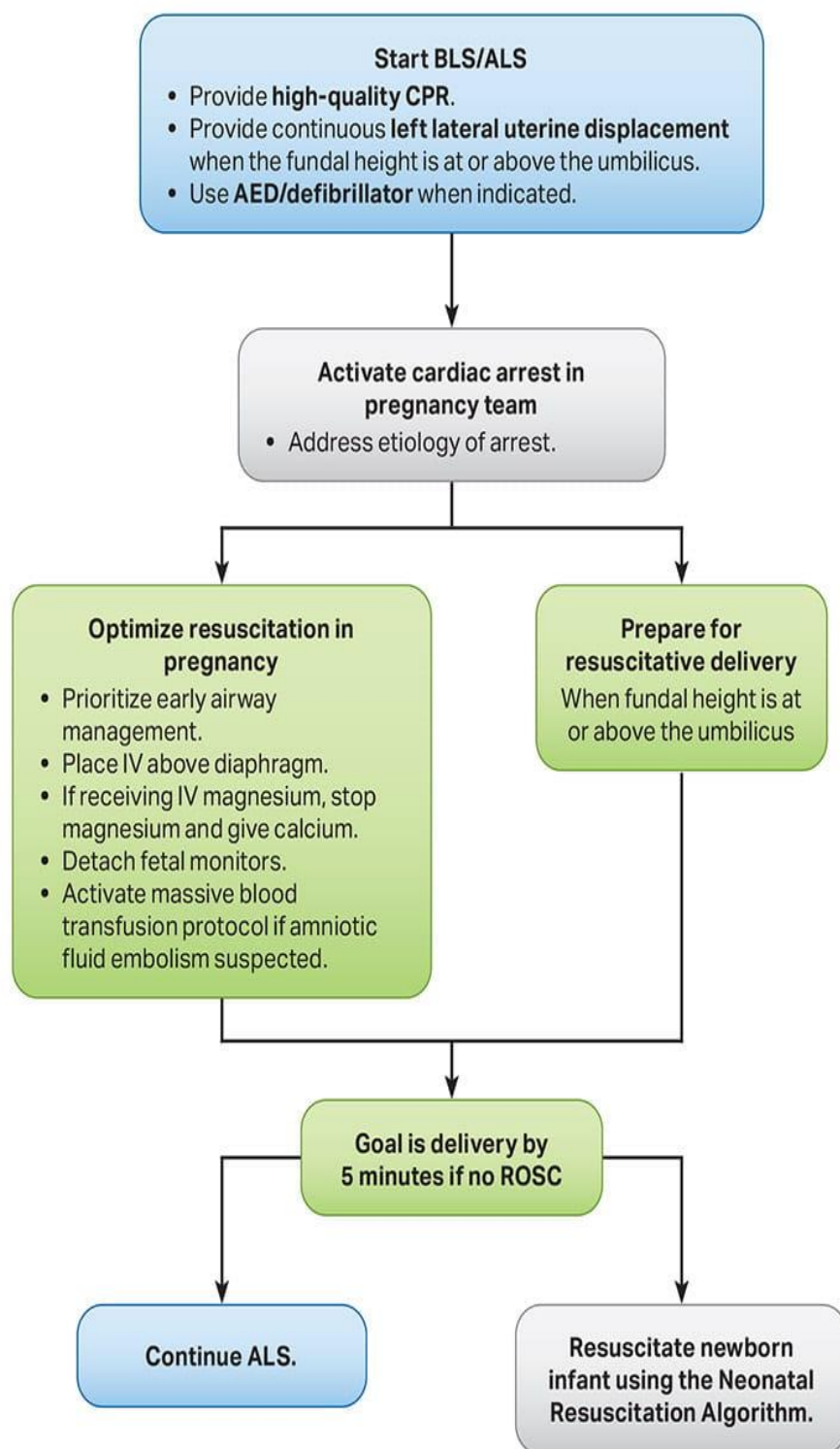
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